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ABSTRACT

Many state legislators are currently debating the issue of providing universal preschool education. This document analyzes the governmental role in preschool education and concludes that government should remain neutral with regard to the provision of such programs. The paper describes steps many states have taken to implement universal preschool programs, notes that 37 states fund prekindergarten programs, suggests that it is likely that mandatory attendance in such programs will appear in the near future, and discusses declines in student achievement since the 1960s. The report challenges the arguments of universal preschool supporters that there is a child-care crisis, that preschools will provide the environment necessary to promote healthy development that parents and many child care settings fail to provide, and that preschool can inoculate children against problems associated with poor and one-parent families. The report also critiques the Perry Preschool Project, the Abecedarian Project, and Head Start. It concludes that even the largest and best known early intervention program for low income children, Head Start, has been a failure, and that evidence shows that middle-class children gain little, if anything, from early education. In addition, the report maintains that it is irresponsible to expand public schools when so many schools fail to educate the children already enrolled. The report concludes that the government should remain neutral with regard to early intervention, neither subsidizing early intervention programs nor changing the tax code to favor stay-at-home parenting. (Contains 105 notes.) (KB)

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UNIVERSAL PRESCHOOL IS NO GOLDEN TICKET

Why Government Should Not Enter the Preschool Business

BY DARCY ANN OLSEN

Executive Summary

Across the country legislators are deciding whether to require public school districts to provide no-fee prekindergarten classes for all three- and four-year-olds. Georgia and New York have implemented universal preschool programs for four-year-olds, and other states have taken steps in that direction. Those programs are voluntary so far, but there have been calls for mandatory participation.

Most advocates of public preschool argue that early schooling of low-income children is an investment that pays off in the long term by reducing the number of children who will perform poorly in school, become teenage parents, commit criminal acts, or depend on welfare. Other advocates of public preschool see it as a way to subsidize child care.

Experience provides little reason to believe universal preschool would significantly benefit children, regardless of family income. For nearly 40 years, local, state, and federal governments and diverse private sources have funded early intervention programs for low-income children, and benefits to the children have been few and fleeting. There is also evidence that middle-class children gain little, if anything, from preschool. Benefits to children in public preschools are unlikely to be greater or more enduring.

Public preschool for younger children is irresponsible, given the failure of the public school system to educate the children currently enrolled. The desire to "do something" for young children should be tempered by the facts, and proposals for universal preschool should be rejected.

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Introduction

Should legislators expand the public school system to include three- and four-year-old children? Should schooling for preschool-aged children be compulsory as it is for most five- and six-year-olds? Legislators across the country are debating those questions, and several states have already made decisions.

Georgia and New York legislators implemented universal preschool for four-year-olds in 1993 and 1997, respectively, and Massachusetts, New Jersey, and Kentucky have taken steps in that direction. The California Department of Education has recommended that public preschool be made available to all three- and four-year-olds, and appropriate legislation has been introduced. And in 1998 Vermont state legislator Bill Suchmann proposed a study of the cost of compulsory preschool for all three- and four-year-olds, saying that compulsion is the only way to guarantee that children have an equal opportunity for education.¹

Supporters of universal preschool frequently argue that most parents fail to provide their children with the experiences and environment necessary to promote their healthy development. Suchmann explains, "Many children do not have parents available at home or even capable of appropriate intellectual stimulation." The result is that many children are not "ready to learn" when they enter kindergarten. Consequently, those children perform at a substandard academic level, which leads to long-term problems including low educational attainment and juvenile delinquency. Proponents of preschool believe they can prevent those problems by intervening before children enter kindergarten. The California Department of Education's Universal Preschool Task Force puts it this way: "The concept of universal preschool recognizes that before children enter kindergarten, much of their potential for learning and healthy growth has already been determined. . . . Effective early childhood education is crucial to children's later success and well-being."

Whether or not one agrees with the advocates' premises, experience shows that there is little reason to believe universal preschool would significantly benefit children. Since the 1960s hundreds of privately and publicly funded early intervention programs have failed to significantly benefit participating children. The largest and best known early intervention program, Head Start, has been a failure. The U.S. Department of Health and Human Services synthesized the findings from the impact studies on Head Start and concluded that the program had no meaningful,

long-term effects on the cognitive, social, or emotional development of participating children: "In the long run, cognitive and socioemotional test scores of former Head Start students do not remain superior to those of disadvantaged children who did not attend Head Start."

Furthermore, evidence shows that middle-class children stand to gain little, if anything, from early education. In fact, many child development experts have argued that formal schooling can actually be harmful to young children. Finally, it is simply irresponsible to expand public schools when so many are failing to educate the children already enrolled. For those reasons, legislators would be wise to reject proposals for universal preschool.

Proposals for Universal Preschool

Proposals for universal preschool vary from state to state and from person to person. Advocates of universal preschool differ on such things as whether preschool should include infants and toddlers, whether parents should be charged an income-based fee, whether preschool should be formal and highly structured or informal and casual, whether programs should be school based or community-wide, and whether attendance should be voluntary or compulsory. Nevertheless, there is general agreement among advocates that preschool programs should be made available, at a minimum, to all three- and four-year-olds regardless of family income.

Universal preschool plans are not aimed solely at children who have traditionally been labeled "disadvantaged"--that is, those from low-income families.⁵ The Carnegie Corporation explains, "Make no mistake about it: underachievement is not a crisis of certain groups: it is not limited to the poor; it is not a problem afflicting other people's children. Many middle- and upper-income children are also falling behind intellectually."⁶ As Sharon L. Kagan, president of the National Association for the Education of Young Children and senior associate at the Bush Center in Child Development and Social Policy at Yale University, and Nancy E. Cohen, a graduate student in the Department of Psychology at the University of California at Berkeley, put it: "The problems in early care and education are legion for poor children and families, but they impact all young children."

A majority of preschool proponents claim that such programs can ensure a child's healthy development. In addition, they claim that early schooling can inoculate

children against problems during adolescence and early adulthood, such as low academic achievement, drug use, teenage pregnancy, juvenile delinquency, and unemployment. For example, the California Department of Education's Universal Preschool Task Force wrote, "Extensive research in recent years has demonstrated the undeniable influence of preschool education on children's later success in school. When children experience success in school, numerous other problems, such as dropping out of school, delinquency, crime, and teenage pregnancy, are prevented."⁸

Other advocates of universal preschool simply see it as a way to provide daycare. For example, Edward F. Zigler, director of the Bush Center in Child Development and Social Policy at Yale University and a cofounder of Head Start, supports universal preschool for three- and four-year-olds as a school-based approach to child care.⁹ It is important to note that Zigler has spoken against mandatory participation, and he has also argued that formal schooling per se may be premature and dangerous for many young children. In short, Zigler argues, "Our four-year-olds do have a place in school, but it is not at a school desk."¹⁰

Still other advocates see universal preschool as having a dual purpose. For example, Lisbeth Schorr, director of the Project on Effective Interventions at Harvard University, argues that federal-state and public-private agencies must commit to "first, a universal preschool program, providing all 3- and 4-year-olds with access to a setting offering both a high-quality preschool experience and child care during the hours that parents work . . . [and, second, a] universal system of supports to ensure that infants and toddlers get the best possible start on life."¹¹

Many advocates share Schorr's desire to provide universal preschool or daycare for infants and toddlers. For example, in "Not by Chance," Kagan and Cohen write, "Stated most simply, the 'Not By Chance' mission is that by the year 2010, high-quality early care and education programs will be available and accessible to all children from birth to age five whose parents choose to enroll them."¹²

Kagan and Cohen conservatively estimate the cost of such a program at \$116 billion a year.¹³ They arrived at that estimate by multiplying the number of eligible children, 20 million, by the average per child cost of public education in 1994, \$5,800. Kagan and Cohen say that in some ways the figure is too high, since not all parents would enroll their children. In other ways, however, they

believe the figure is too low. For example, they say that "quality" early care and education programs would likely cost more than \$5,800 per child per year. Indeed, that seems probable considering the lower student-teacher ratios that would almost certainly be required to care for infants and toddlers and the cost of capital expansion, among other things.

Proponents of universal preschool have various ideas for funding such programs, but there seems to be a consensus that all taxpayers, rather than parents themselves, should have to pay for the programs. According to Kagan and Cohen, "The public must acknowledge its role and pick up more of the tab for early care and education. . . . The public--not simply the direct consumers--should be responsible for funding American early care and education."¹⁴ They suggest possible mechanisms for funding, including individual and corporate income taxes, federal payroll taxes, trust funds, and new sales or excise taxes.

Preschool and Public Education Today

New York and Georgia have implemented universal preschool programs, and Massachusetts, New Jersey, and Kentucky have taken significant steps in that direction.¹⁵ All told, 37 states fund prekindergarten programs.¹⁶ Fourteen of those states target four-year-olds only, and 13 target both three- and four-year-olds. Only 10 of the 37 states have established specific family income levels as required criteria for child eligibility, and not all of the remaining states plan to serve all children. A vast majority of programs use public schools to provide services, and some include parenting education and home-based components.¹⁷

Twenty-four states fund statewide, comprehensive programs for infants and toddlers.¹⁸ Those programs typically include home visits to parents with newborns, parenting education, and limited child care. The National Center for Children in Poverty reports, "In many states there is a deepening commitment to comprehensive programs and planning for young children and families." In fact, since 1996, 10 states have started or expanded programs for infants and toddlers.¹⁹ Per state spending on those programs ranges from \$300,000 to over \$200 million.²⁰

In addition, states supplement state funds with federal funds. In 1997 approximately \$11.5 billion in federal funds was available for child care and early education activities through five major programs: Head Start, the

Child Care and Development Fund, the Child and Dependent Care Tax Credit, the Child and Adult Care Food Program, and the Social Services Block Grant.²¹ That estimate does not include funds for more than 85 other federal preschool and child-care programs for children from birth through age five.²² Most federal funds can be used at the states' discretion to pay for child-care and early education programs such as public preschool. As more and more states open public preschools, it is likely that there will be more pressure on federal legislators to increase the amount of federal funds available for that purpose.

Few legislators, thus far, have proposed mandatory attendance. However, if the history of public education is any indicator, it is likely that such mandates will appear in time. For example, in 1898 only 10 states had compulsory school attendance laws, and they generally applied to children between the ages of 8 and 14 and required attendance for a few months per year.²³ Today all 50 states have compulsory attendance laws, and many apply to children between the ages of 5 and 18 and require attendance for at least eight months per year.²⁴ The trend has been to expand the duration of required attendance to include both younger (age 5 and below) and older (age 18) students.²⁵ At present, the U.S. Department of Education reports, "The notion of transforming schools into all-day, year-round learning centers appears to be a popular one."²⁶ Given historic and current trends, it seems likely that the mandatory participation of three- and four-year-old children in preschool could be required by many states in the early part of the next century.

The trend of expanding the responsibilities of the public school system does not bode well for America's youngsters, particularly given the gross failure of the public school system to educate the children who are currently enrolled. Although we're spending five times more per pupil than we did in the 1940s and more than twice what we spent in the 1960s (adjusted for inflation), student achievement scores on a variety of competency exams have plummeted. Results of the 1994 National Assessment of Educational Progress showed that 57 percent of high school seniors scored below the "basic" level of history achievement, that is, they answered fewer than 42 percent of the questions correctly. The Third International Mathematics and Science Study, released in 1996, found that U.S. eighth-graders scored below the average of students from 40 nations on math and just above the average on science. Scholastic Aptitude Test scores have fallen from 978 in 1963 to 904 today.²⁷ The public schools' failings have forced colleges and businesses to do the work of

the high schools: by the late 1980s, 21 percent of U.S. college freshmen were taking remedial writing courses and 16 percent were taking remedial reading courses. And a recent survey of 200 major corporations found that 22 percent of them teach employees reading and 41 percent teach writing.²⁸

In addition, the poor quality of public schools has been faulted as a primary reason for the growing disparity between "haves" and "have-nots." As Cato's executive vice president David Boaz argues in Liberating Schools: Education in the Inner City,

Education used to be a poor child's ticket out of the slums; now it is part of the system that traps people in the underclass. In a modern society a child who never learns to read adequately--much less to add and subtract, to write, to think logically and creatively--will never be able to lead a fully human life. He or she will be left behind by the rest of society. Our huge school systems, controlled by politics and bureaucracies, are increasingly unable to meet the needs of individual children. Too many children leave school uneducated, unprepared, and unnoticed by the bureaucracy.²⁹

Given the relentless failure of the public school system to educate child after child, year after year, the downward extension of public schooling to three- and four-year-olds is ill-conceived and exceedingly irresponsible.³⁰

What Advocates Claim and What Research Shows

Interest in universal preschool has been increasing for several reasons. One reason is that public preschool is seen as a solution to the so-called child-care crisis. But the notion of a child-care crisis ignores research that shows that affordable, high-quality child care is widely available for families of all socioeconomic levels.³¹

A second reason is that advocates claim that preschool will provide the experiences and environment necessary to promote the healthy development of children, which parents themselves and many preschool and child-care settings fail to do. Yet there is no scientific consensus on what constitutes quality child care, nor have any researchers examined the long-term effects on children of various child-care arrangements.³² In fact, the National Institute of Child Health and Human Development argues

that child-care factors account for only 1.3 percent to 3.6 percent of differences in cognitive and language performance, compared with the 5 percent to 41 percent of the differences that are traceable to all variables, including family income, mother's vocabulary, the child's gender, and family environment.³³ And, as this paper will show, there is no evidence that universal preschool would promote children's healthy development or result in lasting gains to children. Indeed, there is a large body of evidence indicating that early schooling can be harmful to young children.

Finally, interest in preschool is increasing because advocates have advanced the theory that it can inoculate children against problems that are often associated with poor and one-parent families, including below-average school performance, drug use, teenage pregnancy, and juvenile delinquency. Advocates have made the following claims:

- Preschool saves money by improving students' academic performance: "Investing \$1 in quality early education saves \$7 by reducing later grade retention and special education placement and increasing high school graduation rates."³⁴
- Preschool reduces delinquency: "It's going to be hard to ask taxpayers for more education money, but we do think this [universal preschool] will save on special education costs, as well as the very explosive incarceration budget."³⁵
- Preschool increases self-sufficiency and reduces delinquency and welfare use: "Many of these positive effects [of early care and education programs] may linger and contribute to children's increased cognitive abilities, positive classroom learning behaviors, long-term school success, and even improved likelihood of long-term social and economic self-sufficiency. . . . Indeed, investments in quality early care and education save society future costly and lengthy expenditures for incarceration or welfare."³⁶
- Preschool improves the workforce: "To develop the highly educated workforce needed in the twenty-first century, we must change our way of thinking about early education and provide quality preschool programs to help our children succeed."³⁷
- Early intervention can prevent intergenerational poverty: "Children from low-resource families require

intensive and long-lasting educational efforts. . . . The challenge is to find the leadership and the motivation to convince the public that intergenerational poverty and undereducation is a preventable disease."³⁸

Unfortunately, there is very little empirical evidence to support those claims. The largest body of evidence indicates that the effects of early intervention fade after children leave the programs. "Fade out" is important to any discussion of universal preschool because it means that early intervention may be virtually irrelevant to how a child turns out in adolescence or early adulthood.³⁹

However, a number of experimental projects have had meaningful short-term effects on cognitive ability, grade retention, and special education placement.⁴⁰ (Short-term is defined as one to three years after program participation.) Arthur J. Reynolds, professor of social work and child and family studies at the University of Wisconsin at Madison, and other researchers examined 15 reviews that integrated the findings of hundreds of program evaluations since the 1960s and concluded, "The hundreds of studies of demonstration and large-scale programs that now exist provide very strong evidence that most programs of relatively good quality have meaningful short-term effects on cognitive ability, early school achievement, and social adjustment."⁴¹ The consensus in the literature on early intervention supports his conclusion.⁴² Nevertheless, research on short-term effects should not be considered conclusive because most of the studies are severely limited by methodological problems such as small sample size, high attrition rates, infrequent random selection, and infrequent use of comparison groups.⁴³

A second problem with basing proposals for universal preschool on findings from early intervention studies is that most interventions have concentrated on "disadvantaged," or poor, children, so there is no evidence of universal replicability. As David Elkind, professor of child study at Tufts University and author of numerous books including The Hurried Child and Miseducation: Preschoolers at Risk, puts it, early intervention studies have been "uncritically appropriated for middle-class children by parents and educators."⁴⁴ Zigler agrees: "A second source of the momentum toward universal preschool education is the inappropriate generalization of the effects of some excellent remedial programs for the economically disadvantaged."⁴⁵

Not only have early intervention findings been inappropriately generalized to mainstream children, there is actually a tremendous amount of evidence that early

schooling can be harmful to children. Zigler explains, "There is a large body of evidence indicating that there is little if anything to be gained by exposing middle-class children to early education. . . . Those who argue in favor of universal preschool education ignore evidence that indicates early schooling is inappropriate for many four-year-olds and that it may even be harmful to their development."⁴⁶ Abundant evidence supports that conclusion.

Zigler, for example, cites research showing that conversations they have at home may be the richest source of linguistic and cognitive enrichment for children from all but the most deprived backgrounds.⁴⁷ He also cites research showing that premature schooling can potentially slow or reduce a child's overall development by replacing valuable play time.⁴⁸

Elkind describes the potential harm of early schooling this way: "When we instruct children in academic subjects . . . at too early an age, we miseducate them; we put them at risk for short-term stress and long-term personality damage for no useful purpose. There is no evidence that such early instruction has lasting benefits, and considerable evidence that it can do lasting harm."⁴⁹ Elkind argues that when children receive academic instruction too early (generally before age six or seven), they are put at risk for no apparent gain. By attempting to teach the wrong things at the wrong time, early instruction can permanently damage a child's self-esteem, reduce a child's natural eagerness to learn, and block a child's natural gifts and talents. He concludes, "If we do not wake up to the potential danger of these harmful practices, we may do serious damage to a large segment of the next generation."⁵⁰

Before lawmakers decide to make preschool an entrenched institution, like public kindergarten, they should seriously consider those findings. To go forward with plans for universal preschool, despite abundant evidence that early schooling is often harmful to mainstream children, would be exceedingly irresponsible.

Still fewer studies have examined or demonstrated long-term effects of intervention on children's development. (Long-term is defined as four or more years after program participation.) Like the short-term studies, most long-term studies have significant methodological problems. They are impaired by small sample size, attrition, and selection bias.⁵¹ Furthermore, most programs studied are model programs, not large-scale programs, which means they are severely limited in statistical power and generalizability.⁵² The consensus in the literature is that two

studies provide reasonably valid estimates of the long-term effects of early intervention on disadvantaged children--those on Perry Preschool and Abecedarian.⁵³ However, as the following two sections demonstrate, neither study makes a convincing case for universal preschool.

Perry Preschool

The Perry Preschool Project was a longitudinal experiment designed to study the effects of early intervention on disadvantaged children. It was the early childhood intervention program most frequently cited in research reviews between 1983 and 1997.⁵⁴ It is heavily cited in the literature and legislation in support of universal preschool.

The experiment was conducted by investigators at the High/Scope Educational Research Foundation in Ypsilante, Michigan, from 1962 to 1965. The investigators reported their most recent findings in Significant Benefits: The High/Scope Perry Preschool Study through Age 27.⁵⁵

The Perry Preschool Project was an intervention program for three- and four-year-olds deemed at risk for "retarded intellectual functioning and eventual school failure."⁵⁶ It involved either one or two years of half-day preschool for seven months each year and periodic home visits. One hundred twenty-three children participated, 58 children in the experimental group and 65 in the control group. All of the children were of low socioeconomic status and had IQs in the range of 70 to 85.⁵⁷ The High/Scope study is frequently cited because it is the most comprehensive longitudinal study of any comparable intervention program. Participants were studied through age 27.

Analyses show that students who participated in the preschool program fared better over the long term on a variety of educational and social measures than did children in the control group. As Lawrence J. Schweinhart, Research Division chair at High/Scope, writes, "Program participation had positive effects on adult crime, earnings, wealth, welfare dependence, and commitment to marriage."⁵⁸ An examination of the Perry children at age 27 found the following results: participants had 11.9 years of schooling versus 11 years for the control group; 7 percent of participants had been arrested for drug dealing versus 25 percent of the control group; 59 percent of participants received welfare assistance as adults versus 80 percent of the control group.⁵⁹ On the basis of those and other findings, Schweinhart concluded, "The program provided

taxpayers a return on investment of \$7.16 on the dollar."⁶⁰ Advocates rely heavily on that cost/benefit analysis to make their case that preschool is an investment that more than pays for itself in the long term.

The High/Scope researchers' interpretation of the long-term findings is that the preschool program prepared children for kindergarten, which resulted in a more positive reaction by kindergarten teachers that, in turn, caused the children to have a stronger commitment to school. That is sometimes called the snowball hypothesis. Three researchers from Yale University explain: "The snowball hypothesis presumes that children who attend quality intervention programs are better prepared socially and academically when they begin school. This enables them to interact positively with their teachers, who in turn relate positively to them, and this tone of adult-child relationships continues in progressive years of school."⁶¹ Others posit that the home visitation component was largely responsible for the results. They hypothesize that people became more effective parents as a result of their involvement in the program. Experiences such as building relationships with teachers may help parents establish a more supportive home environment and effective "home-school linkages."⁶² At any rate, there is no consensus on what components of the program were responsible for the children's gains. The critical question remains, how could a one- or two-year half-day preschool program produce such outstanding results?

The High/Scope researchers have been subject to heavy criticism for using nonstandard significance levels. If standard significance levels are used, many of the most "significant" differences between the experimental and control groups disappear.⁶³ Psychology professor Charles Locurto of the College of the Holy Cross in Massachusetts argues that the Perry results are less remarkable when all findings, not just those that favor Perry, are considered. He writes:

We might marry the large number of nonsignificant and unfavorable findings into a different picture of the Perry Project's outcomes. We might argue that preschool training resulted in no differences in school motivation or school potential at the time of school entry, no lasting changes in IQ or achievement test performance. . . . There were no differences in their average grades as compared to former control-group children, in their personal satisfaction with their school performance or in their self-esteem. Their par-

ents were no more likely to talk with teachers about school work or to attend school activities and functions than control-group parents. Preschool children were more likely to have been placed in remedial education. By age 19, they were unemployed at a rate equal to that of their control-group counterparts.⁶⁴

In addition, questions have been raised concerning the Perry sample and methodology. According to Zigler,

[The Perry sample] was not only nonrepresentative of children in general; there is some doubt that it was representative of even the bulk of economically disadvantaged children. . . . The Perry Project poses a number of methodological difficulties. . . . Children had to have a parent at home during the day, resulting in a significant difference between control and intervention groups on the variable of maternal employment . . . [and] assignment to experimental and control groups was not wholly random.⁶⁵

Whether or not one believes the Perry findings are valid, there are several facts that should prevent legislators from basing policy recommendations for universal preschool on the study. First, in more than 40 years, no other program or study has produced results as dramatic as those found for Perry.⁶⁶ That suggests that there may have been unique conditions at the Perry Preschool that simply cannot be duplicated. Certainly, as a general principle, science requires an experiment to be replicable before it can be considered valid. Policymakers should be no less cautious when it comes to applying findings to millions of children.

Second, benefits were obtained only for severely disadvantaged children at risk of "retarded intellectual functioning"; it is simply inappropriate to generalize the effects of Perry to all children. This is particularly important given the studies that suggest that preschool may actually be harmful to many mainstream children.

Third, Perry children may have outperformed children in the control group, but they still fared poorly compared with mainstream children. For example, nearly one-third of participating children dropped out of high school, nearly one-third of the children were arrested, and three of five participating children received welfare assistance as adults.⁶⁷ That has led many researchers to be more level-headed about the likely effects of early interven-

tion: "Policymakers should not assume that the widespread enrollment of low-income children and families in early childhood programs will enable children living in poverty to perform later in school and life at the levels reached by more advantaged [mainstream] children."⁶⁸

Finally, Perry differed significantly from regular preschool programs or what we could expect to see in universal preschool programs. According to Zigler, "It is very unlikely that a preschool program mounted in the typical public school will be of the quality represented by the Perry Preschool Project."⁶⁹ Large-scale programs tend to have smaller effects than model programs, in part because model programs have smaller classes, more educated and enthusiastic staff, more staff members, and more attention and supervision per child.⁷⁰

The Carolina Abecedarian Project

The Abecedarian Project was launched in 1972 by researchers at the Frank Porter Graham Child Development Center in Chapel Hill, North Carolina. The project involved 111 children deemed at risk on the basis of their parents' income, education, and other factors. The mean age at entry was 4.4 months. The infants were placed in an eight-hour-a-day, five-day-per-week, year-round educational daycare center. They received free medical care, dietary supplements, and social service support for their families.⁷¹ From ages five through eight, half of the children from both the experimental and the control groups were given extra help in school and at home by specially trained teachers.⁷²

At every age from one and a half to four and a half years, children treated in preschool significantly outscored the control group on measures of intellectual development.⁷³ At age eight, test data showed significant positive effects of preschool treatment on intellectual test scores.⁷⁴ A follow-up test at age 12 showed that the effects of preschool treatment on children's performance on intellectual tests and on reading and mathematics tests had been maintained into early adolescence. As the Abecedarian Project researchers note, "This represented a longer maintenance of preschool intervention gains than has typically been reported from previous projects concerned with similar children and families."⁷⁵

Most recently, researchers examined the children's intellectual and academic performance at age 15 and found that students who had received preschool treatment scored

higher on reading and mathematics tests and had fewer instances of grade retention and assignments to special education than did the control group.⁷⁶ The average IQ score advantage for children treated in preschool was 4.6 points.⁷⁷ The researchers hope that benefits from the preschool program will be retained through adulthood: "Extrapolating from long-term outcomes of the Perry Preschool Project, it is the hope of the Abecedarian investigators that the benefits found through mid-adolescence in our sample will eventually be reflected in better life circumstances in adulthood."⁷⁸

As with the Perry project, there is no consensus on what components of the program were responsible for the children's gains, although it has been suggested that the early cognitive gains were associated with greater mastery of academics, which led, in turn, to better performance thereafter.⁷⁹ The findings also provide support for an intensity or duration hypothesis, which predicts that longer, more intense programs result in the most advantages for children.⁸⁰

The project investigators conclude:

The long-term results from the Abecedarian Project underscore the need for high quality learning environments for impoverished infants, toddlers, and preschoolers . . . these results should not, however, be construed as proof that out-of-home care was the key element. . . . It is quite likely that this type of early intellectual enhancement can occur in a variety of settings. . . . The key factor is likely to be that the environment was appropriately responsive to the needs of the developing child and provided continuing experiences from which enhanced intellectual development and literacy and mathematics skills emerged.⁸¹

The Abecedarian Project has received a fair share of criticism, most notably from Herman H. Spitz, former director of the Research Department at the E. R. Johnstone Training and Research Center in Bordentown, New Jersey.⁸² Spitz was concerned that the project personnel presented certain results in ways that bias the findings in favor of Abecedarian. For example, by combining the IQ findings of the four cohorts studied, the researchers concluded that the intervention raised IQ. However, they neglected to report that scores improved only for two of the four groups. In fact, for the third and fourth cohorts, the experimental group actually lost 3.68 IQ points more than

did the control group, providing no support for the efficacy of the intervention.⁸³

Spitz also points out that differences favoring the intervention group first emerged at six months of age, when those children's advantage was 6 points. He writes, "This is a rather surprising finding when one considers that the mean age of entry into the daycare center was 4.4 months."⁸⁴ In terms of IQ, the intervention groups' IQ advantage at five years of age was essentially the same as it had been at six months of age. Spitz asks, "What happened during the initial 1.6 months to produce essentially the same advantage for the intervention group that later was found at 5 and 12 years of age?"⁸⁵ "We need to understand why an additional 4.5 years of intensive intervention had so little effect that, at six years of age (and older), the difference between the intervention and control groups was not appreciably different than it had been at six months of age."⁸⁶ Spitz also argues that some of the reported test results may be biased in favor of the Abecedarian Project, given the ways the tests were conducted.⁸⁷

Whether or not one believes the Abecedarian findings are wholly valid, as is the case with Perry Preschool, there are several facts that should prevent legislators from basing policy recommendations for universal preschool on the study. First, benefits were obtained only for a small group of "economically disadvantaged African-American children." Again, Abecedarian faces the problem of applicability: one cannot assume that the findings would apply evenly, if at all, to mainstream children.

Second, the Abecedarian Project has not been replicated.⁸⁸ Because the Abecedarian Project is the first of its kind to demonstrate such lasting, positive results, it is critically important that it be replicated before being used as a model.

And finally, even if the Abecedarian Project is widely replicated in the future, the intervention is far more intense than that offered through universal preschool. One could not expect to see--indeed, one has never seen--Abecedarian-type results from a one- or two-year preschool program. It is likely that the positive outcomes of the Abecedarian Project occurred because the children entered the unprecedented intensive program at such an early age. Universal preschool is simply not comparable to what was essentially an adoptive or second-home environment.

To summarize, then, no empirical evidence supports the claims that universal preschool will reduce the number of

children who will perform poorly in school, become teenage parents, commit criminal acts, or depend on welfare. Although some projects have had meaningful short-term effects on disadvantaged children's cognitive ability, grade retention, and special education placement, those benefits are short-lived. At the same time, most interventions have concentrated on disadvantaged children, so there is no evidence for universal replicability. In fact, a large body of evidence shows that preschool can have a negative impact on middle-income children.

Few studies have examined or demonstrated long-term effects of intervention on children's development. Most attempted studies were of model programs and were impaired by small sample size, attrition, and selection bias and were severely limited in statistical power and generalizability. The two projects that provide the most valid estimates of the long-term effects of early intervention on disadvantaged children--Perry Preschool and Abecedarian--do not support the claims made by advocates of universal preschool. Finally, even if there were reliable evidence of lasting, long-term effects of early intervention on disadvantaged children, it would still be necessary to show that those effects could be generalized to a program of state or national scope. As the following section details, the government's longest running preschool program for disadvantaged children, Head Start, has failed to produce long-term benefits for participating children.

Head Start

Research on Head Start is relevant to the universal preschool debate because the program has many characteristics of a large-scale, public preschool program. Unlike model programs, which typically have been small in scale and conducted under ideal circumstances, Head Start is a large-scale program operating under real-world conditions and constraints. And unlike research on model programs, which usually offers snapshots in place and time, research on Head Start has been conducted across the country over a 33-year period. Furthermore, fundamental to the program's philosophy is the notion that communities should have considerable latitude to develop their own programs. That variability is likely to be comparable to the variability one would find among public preschools within school districts and across states.

Ron Haskins, administrative director of the Abecedarian Project from 1977 to 1980 and now staff director of the Human Resources Subcommittee of the House Ways

and Means Committee, explains:

[Many] intervention programs were conducted under ideal circumstances: skilled researchers, capable staffs with lots of training, ample budgets, and perhaps in the glow of Hawthorne effects. It seems unwise to claim that the benefits produced by such exemplary programs would necessarily be produced by ordinary preschool programs conducted in communities across the United States. Research about Head Start, then, is valuable because Head Start has all the characteristics of a large-scale preschool program: It has more than 1,300 preschool projects serving about 457,000 children; it focuses on poor children; and its quality varies widely across sites. Thus, information about the effects of Head Start can be offered as a close approximation of what could be expected from universal preschool education for poor children.⁸⁹

Head Start was the child-centered component of the War on Poverty. It was designed to improve the poor child's opportunities and achievements in order to end the "pattern of poverty." Its seven major objectives were to improve the child's physical health, help the child's emotional and social development, improve the child's mental processes, establish patterns and expectations of success, increase the child's ability to relate positively to family members, develop in the child and his family a responsible attitude toward society, and increase the sense of dignity and self-worth of the child and his family.⁹⁰

President Lyndon Johnson enthusiastically announced Head Start's opening in 1965:

We set out to make certain that poverty's children would not be forevermore poverty's captives. We called our program Project Head Start . . . [this program] reflects a realistic and a wholesome awakening in America. It shows that we are recognizing that poverty perpetuates itself. Five- and six-year-old children are inheritors of poverty's curse and not its creators. Unless we act these children will pass it on to the next generation, like a family birthmark. . . . This program this year means that 30 million man-years--the combined lifespan of these youngsters--will be spent productively and rewardingly, rather than wasted in tax-supported institutions or in welfare-supported lethargy.⁹¹

Like today's advocates of universal preschool, President Johnson sold his program to the public by promising that early intervention could prevent delinquency, poverty, and welfare use. The reality of Head Start has been much different.

As have model intervention programs, Head Start programs have had mixed short-term results.⁹² However, there is no evidence of Head Start's having a positive, lasting impact on children.⁹³ The most recent and thorough analysis of Head Start's impact was conducted in 1997 by the General Accounting Office.⁹⁴ After speaking with early childhood researchers and practitioners and searching through electronic databases to locate published and unpublished manuscripts, GAO found nearly 600 citations and documents. Of those, only 22 studies fit their criteria for review and all of those "had some methodological problems."⁹⁵ Not one study used a nationally representative sample so that findings could be generalized to the national program.⁹⁶ The GAO concluded that "the body of research on current Head Start is insufficient to draw conclusions about the impact of the national program."⁹⁷ Although the 1990 act that reauthorized Head Start funding directed the Department of Health and Human Services to conduct "a longitudinal study of the effects that the participation in Head Start programs has on the development of participants and their families and the manner in which such effects are achieved," the Department of Health and Human Services claims that funds were never appropriated for the study; consequently, it has not been conducted.⁹⁸

HHS maintains that early research has proven Head Start's effectiveness. In a letter to the GAO, June Gibbs Brown, inspector general of HHS, wrote, "There is clear evidence of the positive impacts of Head Start services."⁹⁹ For supporting evidence, HHS cited findings from a comprehensive synthesis of Head Start impact studies conducted under its auspices in 1985.¹⁰⁰ The study showed that Head Start can have an immediate positive impact on cognitive measures, social behavior, and child health, among other things.¹⁰¹ HHS failed, however, to mention the rest of the synthesis's findings, namely that the short-term impact of Head Start quickly diminishes once the children enter school. In fact, the synthesis concluded, "In the long run, cognitive and socioemotional test scores of former Head Start students do not remain superior to those of disadvantaged children who did not attend Head Start."¹⁰²

Regarding cognitive development measures--IQ scores, school readiness, and achievement test scores--the report concluded:

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Once the children enter school there is little difference between the scores of Head Start and control children. . . . Findings for the individual cognitive measures--intelligence, readiness and achievement--reflect the same trends as the global measure. . . . By the end of the second year there are no educationally meaningful differences on any of the measures.¹⁰³

Findings on the impact on children's socioemotional development--social behavior, achievement motivation, and self-esteem--are similar. The evidence showed,

On social behavior, former Head Start enrollees . . . drop to the level of comparison children by the end of the third year. On achievement motivation and self-esteem, Head Start children drop below non-Head Starters a year after Head Start, then score about the same as comparison children for the next two years.¹⁰⁴

Head Start's inability to produce lasting gains after more than three decades confirms the research on early intervention--short-term gains are possible, but those gains do not last--once again calling into question the claims of advocates of universal preschool. There simply is no evidence that universal preschool will benefit children. Head Start has failed to have a lasting impact on children's cognitive, social, or emotional development, let alone reduce teenage pregnancy rates, delinquency, or welfare use.

The GAO is correct in maintaining that the body of research literature on Head Start is imperfect. Like the literature on early intervention, many of the studies are methodologically flawed, and the Head Start program has undergone significant changes since many of the studies were conducted. Given that, one might suggest that more and better research is needed before concluding that the program has failed. Yet the literature on Head Start, however imperfect, is remarkably consistent with the past 40 years of research findings on early intervention in general. Both bodies of research consistently show that early intervention programs may have short-term gains, but those gains fade within a few years of exiting the programs. In that light, calls for more and better research begin to look like last-ditch attempts to stall the release of the lamentable finding that early intervention is no golden ticket: underachievement will not be eradicated by preschool participation.

Conclusion

Whether or not early intervention enhances a child's development, the government should remain neutral with regard to the provision of early intervention programs. The state should not encourage early intervention programs by subsidizing them, nor should it, on the other hand, discourage early intervention programs by tinkering with the tax code to favor stay-at-home parenting. Put simply, it is not the province of the state to educate young children.

To be sure, the provision or funding for early education programs by the federal government cannot be squared with the notion of a national government whose powers are enumerated and thus limited by the Constitution. But equally important is the recognition that few issues are more important or personal than a young child's well-being, including her early education. You don't need a Ph.D. in political science to understand that parents, not 535 politicians in Washington and a handful of local officials, are best equipped to make decisions about early education--decisions that require keeping the unique needs of each child and family in mind.

Philosophical principles aside, the failure of preschool and early intervention programs to benefit disadvantaged and mainstream children should prevent legislators from funding and adopting universal preschool programs. After 40 years of research and experimentation, there is ample evidence that early intervention, and preschool education in particular, does not benefit disadvantaged children in any meaningful or lasting way. In addition, legislators must be mindful of the evidence presented by Zigler and Elkind among others that early schooling can actually be harmful to middle-class children.

Perhaps the greatest hazard is that government endorsement of preschool programs leads well-intentioned parents to believe that the programs will make a positive difference in their children's lives. Trusting the government, those parents forgo other opportunities that might actually improve their children's long-term outcomes. And that is the real loss. In 1987 Edward F. Zigler explained:

This is not the first time universal preschool education has been proposed. . . . Then, as now, the arguments in favor of preschool education were that it would reduce school failure, lower drop-out rates, increase test scores, and produce a generation of more competent high school graduates. . . . Preschool education will achieve

none of these results. I am not simply saying that universal preschool education will be a waste of time and money. Rather there is a positive danger in asserting that the solution to the poor school and later life performance of the disadvantaged will be solved by a year of preschool education. The nation is on the verge of falling into the over-optimistic trap that ensnared us in the mid-sixties, when expectations were raised that an eight-week summer program could solve all the problems of the poor. If we wish to improve the lives of the economically disadvantaged, we must abandon the short-term "solutions" of the sixties and work for much deeper social reforms. . . . We simply cannot inoculate children in one year against the ravages of a life of depravation.¹⁰⁵

It is a truism that politicians relish the opportunity to be photographed with children--it isn't easy to say no to anything with a child attached to it, be it a politician or a program. Perhaps that is one reason why preschool programs have been so widely embraced. But we should be careful to scrutinize the facts behind these programs. Anything less would be a disservice to children whose welfare is dependent on the decisions adults make on their behalf. Given the facts--that preschool does not provide lasting benefits to disadvantaged or mainstream children--Congress and state legislators should resist calls to support or implement universal preschool for toddlers and young children.

Notes

1. See Anne Geggis, "Mandatory Preschool?" Burlington Free Press, February 16, 1998.
2. Bill Suchmann, "Not 'Mandatory,'" Letter to the editor, Burlington Free Press, March 8, 1998.
3. Superintendent's Universal Preschool Task Force, California Department of Education, "Ready to Learn: Quality Preschool Programs for California's Young Children," Draft, December 24, 1997, pp. 3-4, <http://www.facilitate.com/clients/CDE/RPT1224B.html>.
4. Ruth McKey et al., "The Impact of Head Start on Children, Families, and Communities," U.S. Department of Health and Human Services, HHS 85-31193, June 1985, Executive Summary, p. 1.

5. It is appropriate that advocates have stopped using the terms "low-income" and "disadvantaged" interchangeably, given the mounds of empirical evidence showing that family income does not determine a child's outcome. See, for example, Susan E. Mayer, What Money Can't Buy: Family Income and Children's Life Chances (Cambridge, Mass.: Harvard University Press, 1997); and Paul R. Amato and Alan Booth, A Generation at Risk (Cambridge, Mass.: Harvard University Press, 1997). However, that assumption appears to have been replaced by the equally untested assumption that most parents do not provide for their children's healthy development.
6. Carnegie Corporation of New York, "Years of Promise: A Comprehensive Learning Strategy for America's Children," September 1996, p. viii, <http://www.carnegie.org/execsum.html#genprob>. Emphasis in the original.
7. Sharon L. Kagan and Nancy E. Cohen, "Not by Chance: Creating an Early Care and Education System for America's Children," Bush Center in Child Development and Social Policy, Yale University, 1997, p. 3.
8. Superintendent's Universal Preschool Task Force, California Department of Education, "Universal Preschool: Urgent Education Priority," March 15, 1998, <http://www.cde.ca.gov/preschool/priority.htm>
9. Edward F. Zigler, "School-Based Daycare for All Children," Testimony to the U.S. House Education and Labor Committee, February 9, 1989.
10. Edward F. Zigler, "Formal Schooling for Four-Year-Olds? No" in Early Schooling: the National Debate, ed. Sharon L. Kagan and Edward F. Zigler (New Haven, Conn.: Yale University Press, 1987), p. 40.
11. American Political Network Inc., "Spotlight: Early Childhood Conundrum," Daily Report Card 42, no. 7 (May 12, 1997), cited at <http://www.americatomorrow.com/menu/drc/drc70512.htm>.
12. Kagan and Cohen, "Not by Chance," p. ix.
13. Sharon L. Kagan and Nancy E. Cohen, "Funding and Financing Early Care and Education: A Review of Issues and Strategies," Bush Center in Child Development and Social Policy, Yale University, 1997, p. 10.
14. Kagan and Cohen, "Not by Chance," p. 35.

15. Anne Mitchell, Carol Ripple, and Nina Chanana, "Prekindergarten Programs Funded by the States: Essential Elements for Policy Makers," Families and Work Institute, New York, July 1998, pp. 28-29, 36-37, 44-46, 56-58, 61-62.
16. Not included are city and county investments or state actions that direct federal funds to specific projects to benefit preschoolers, such as Head Start programs. See *ibid.*, pp. 3-6.
17. Jane Knitzer and Stephen Page, "Map and Track: State Initiatives for Young Children and Families," National Center for Children in Poverty, New York, 1998.
18. *Ibid.*, pp. 34, 45.
19. *Ibid.*, p. 7.
20. *Ibid.*, p. 15.
21. General Accounting Office, "Federal Child Care Funding," GAO/HEHS-98-70R, January 23, 1998, pp. 3, 8-9.
22. The General Accounting Office could not report a precise figure for total federal spending because many program administrators were unable to determine how much they spent on children under age five. See General Accounting Office, "Early Childhood Programs and Overlapping Target Groups," GAO/HEHS-95-4FS, October 1994, pp. 2-5.
23. Mary K. Novello, "A Case against Compulsion," Washington Institute Foundation, Seattle, Policy Brief, March 1998, p. 3.
24. Education Commission of the States Information Clearinghouse, "Compulsory School Age Requirements," Clearinghouse Notes, March 1994; and Education Commission of the States Information Clearinghouse, "State Characteristics: Kindergarten," April 1997. See also <http://www.ecs.org>.
25. Kenneth Duckworth, Encyclopedia of Educational Research, 6th ed. (New York: Macmillan, 1992), vol. 1, p. 100.
26. Office of Educational Research and Improvement, U.S. Department of Education, "Dramatic Expansion Proposed for After-School Programs," OERI Bulletin, Fall 1998, p. 3. See also Ron Haskins, "Beyond Metaphor: The Efficacy of Early Childhood Education," American Psychologist 44, no 2 (February 1989): 280.

27. See David Boaz and R. Morris Barrett, "What Would a School Voucher Buy? The Real Cost of Private Schools," Cato Institute Briefing Paper no. 25, March 26, 1996, pp. 1-4, <http://www.cato.org/pubs/briefs/bp025.html>; and David Boaz, "Department of Education" in Cato Handbook for Congress: 106th Congress (Washington: Cato Institute, 1999), pp. 123-31.

28. Boaz and Barrett, p. 2.

29. David Boaz, "The Public School Monopoly: America's Berlin Wall," in Liberating Schools: Education in the Inner City (Washington: Cato Institute, 1991), pp. 11-12.

30. For more information on public schools and ideas for reform, see Bruce Goldberg, Why Schools Fail (Washington: Cato Institute, 1996); David Harmer, School Choice: Why You Need It, How You Get It (Washington: Cato Institute, 1994); Daniel McGroarty, Break These Chains: The Battle for School Choice (Rocklin, Calif.: Prima, 1994), pp. 14-32; and Myron Lieberman, Public Education: An Autopsy (Cambridge, Mass.: Harvard University Press, 1993).

31. Preschool is usually considered a type of "child care." The largest surveys on child care, including the National Child Care Survey, 1990 (Washington: Urban Institute, 1991); and A Profile of Child Care Settings: Early Education and Care in 1990 (Princeton, N.J.: Mathematica Policy Research, 1991), include data on pre-school. For more about the availability, affordability, and quality of child-care and preschool arrangements, see Darcy Olsen, "The Advancing Nanny State: Why the Government Should Stay Out of Child Care," Cato Institute Policy Analysis no. 285, October 23, 1997; Darcy Olsen, "State of the Union, Issue: Child Care," Cato Institute Fact Sheet, January 30, 1998; and Robert Rector, "Facts about American Families and Day Care," Heritage Foundation FYI no. 170, January 21, 1998.

32. For more information on quality issues, see Olsen, "The Advancing Nanny State," pp. 5-11.

33. It is unclear whether those minor differences recorded in the short term will significantly affect children's long-term development. See, for example, "Mother-Child Interaction and Cognitive Outcomes Associated with Early Child Care: Results of the NICHD Study," Poster symposium presented at the biennial meeting of the Society for Research in Child Development, Washington, April 1997.

34. New York State Board of Regents, "Background Paper in

Support of the Policy Statement on Early Childhood," February 1993, p. 2.

35. Karen Lafayette, Democratic Vermont state representative, quoted in Geggis.

36. Kagan and Cohen, "Not by Chance," p. 5.

37. Superintendent's Universal Preschool Task Force, California Department of Education "Executive Summary of the Universal Preschool Task Force Report," <http://www.cde.ca.gov/preschool/index.htm>.

38. Craig T. Ramey and Frances A. Campbell, "Poverty, Early Childhood Education, and Academic Competence: The Abecedarian Experiment," in Children in Poverty: Child Development and Public Policy, ed. Aletha C. Huston (Cambridge: Cambridge University Press, 1991), p. 218.

39. This discussion of early intervention does not consider the health or nutrition components of early intervention programs. The focus is on the social, emotional, and cognitive impacts that early intervention may have on children as those components are directly relevant to the debate over universal preschool.

40. Lower rates of placement in special education classes and less grade retention are not unequivocally beneficial. See Charles Locurto, "Beyond IQ in Preschool Programs?" Intelligence 15 (1991): 298, 301.

41. Arthur J. Reynolds et al., "The State of Early Childhood Intervention: Effectiveness, Myths and Realities, New Directions," Focus 1, no. 19 (Summer-Fall 1997): 6.

42. See, for example, Lynn A. Karoly et al., Investing in Our Children (Santa Monica: RAND, 1998), pp. 61-68; and Donna Bryant and Kelly Maxwell, "The Effectiveness of Early Intervention for Disadvantaged Children," in The Effectiveness of Early Intervention, ed. Michael J. Guralnick (Baltimore: Paul H. Brookes, 1997), pp. 42-43.

43. Nancy L. Karweit, "Effective Preschool Programs for Students at Risk," in Effective Programs for Students at Risk, ed. R. E. Slavin (Needham, Mass.: Allyn and Bacon, 1989), pp. 75-102; and Bryant and Maxwell, pp. 24-25.

44. David Elkind, Miseducation: Preschoolers at Risk (1987; New York: Knopf, 1997), p. 69.

45. Zigler, "Formal Schooling for Four-Year-Olds?" p. 28.

46. Ibid., pp. 32, 35.
47. Ibid., pp. 34-35.
48. Ibid., p. 35.
49. Elkind, pp. 34-35.
50. Ibid., p. 4.
51. Karweit, pp. 98-99.
52. Reynolds et al., p. 10.
53. For more on the quality and findings of the research on early intervention, see Karweit, pp. 75-102; and Bryant and Maxwell, pp. 23-46.
54. Reynolds et al., p. 8.
55. Lawrence J. Schweinhart, Significant Benefits: The High/Scope Perry Preschool Study through Age 27 (Ypsilante, Mich.: High/Scope Press, 1993).
56. Edward Zigler, Cara Taussig, and Kathryn Black, "Early Childhood Intervention: A Promising Preventative for Juvenile Delinquency," American Psychologist 47, no. 8 (August 1992): 1000.
57. For a complete program description, see Lawrence Schweinhart and David Weikart, "The Effects of the Perry Preschool Program on Youths through Age 15: A Summary," in the Consortium for Longitudinal Studies, As the Twig Is Bent--Lasting Effects of Preschool Programs (Hillsdale, N.J.: Lawrence Erlbaum Associates, 1983), pp. 71-81.
58. Lawrence J. Schweinhart, "Lasting Benefits of Preschool Programs," ERIC Digest EDO-PS-94-2, January 1994, <http://ericps.ed.uiuc.edu/eece/pubs/digests/1994/schwei94.html>.
59. Schweinhart, Significant Benefits, p. 55; and Schweinhart, "Lasting Benefits of Preschool Programs," p. 2.
60. Ibid.
61. Zigler, Taussig, and Black, p. 1002.
62. Ibid., p. 1000.
63. Locurto, pp. 299-305.

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64. Ibid., pp. 303-4.
65. Zigler, "Formal Schooling for Four-Year-Olds?" pp. 30-31.
66. See Haskins, p. 279.
67. Schweinhart, Significant Benefits, pp. 59, 86, 106.
68. Deanna S. Gomby et al., "Long-Term Outcomes of Early Childhood Programs: Analysis and Recommendations," in The Future of Children 5, no. 3 (Winter 1995): 14.
69. Zigler, "Formal Schooling for Four-Year-Olds?" p. 30. See also Haskins, pp. 279-80.
70. See W. Steven Barnett, "Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes," in The Future of Children 5, no. 3 (Winter 1995): 44.
71. There is no published analysis of the per child cost of the Abecedarian project; however, project leaders are planning a cost analysis of the program. Craig T. Ramey, Frances A. Campbell, and Clancy Blair, "Enhancing the Life Course for High-Risk Children: Results from the Abecedarian Project," in Social Programs That Work, ed. Jonathan Crane, (New York: Russell Sage Foundation: 1998), pp. 179-80.
72. For a complete description of the Abecedarian Project, see Frances A. Campbell and Craig T. Ramey, "Cognitive and School Outcomes for High-Risk African-American Students at Middle Adolescence: Positive Effects of Early Intervention," American Educational Research Journal 32, no. 4 (Winter 1995): 743-72.
73. Campbell and Ramey, p. 750.
74. Ibid., p. 752.
75. Ibid., p. 752.
76. Ibid., p. 743.
77. Ibid., p. 757, 760-61.
78. Ibid., pp. 768-69.
79. Ibid., p. 766.
80. Bryant and Maxwell, p. 34.
81. Campbell and Ramey, p. 768.

82. Spitz left Johnstone in 1989. Since then he has published several papers on the Abecedarian Project, including Herman H. Spitz, "Some Questions about the Results of the Abecedarian Early Intervention Project Cited by the APA Task Force on Intelligence," American Psychologist 52, no. 1 (January 1997): 72; Herman H. Spitz, "When Prophecy Fails: On Ramey's Response to Spitz's Critique of the Abecedarian Project," Intelligence 17 (1993): 17-23; Herman H. Spitz, "Spitz's Reply to Ramey's Response to Spitz's First Reply to Ramey's First Response to Spitz's Critique of the Abecedarian Project," Intelligence 17 (1993): 31-35; Herman H. Spitz, "Early Educational Intervention Research and Cronbach's Two Disciplines of Scientific Psychology," Intelligence 17 (1993): 251-55; Herman H. Spitz, "Does the Carolina Abecedarian Early Intervention Project Prevent Sociocultural Mental Retardation?" Intelligence 16 (1992): 225-37; and Herman H. Spitz, "Commentary on Locurto's 'Beyond IQ in Preschool Programs?'" Intelligence 15 (1991): 327-33.
83. Spitz, "Does the Carolina Abecedarian Early Intervention Project Prevent Sociocultural Mental Retardation?" pp. 228-29.
84. Spitz, "Some Questions about the Results of the Abecedarian Early Intervention Project Cited by the APA Task Force on Intelligence," p. 72.
85. Ibid.
86. Spitz, "Spitz's Reply to Ramey's Response to Spitz's First Reply to Ramey's First Response to Spitz's Critique of the Abecedarian Project," p. 35.
87. For example, Spitz explains that mothers of the experimental group were present at the testing and assisted in the administration of some tests. That means that the mothers may have provided their children with practice on some of the test items. Spitz, "Does the Carolina Abecedarian Early Intervention Project Prevent Sociocultural Mental Retardation?" pp. 231-32.
88. Project CARE and the Infant Health and Development Program are similarly structured studies, but they have not followed participating children into adolescence or early adulthood. See Craig T. Ramey and Sharon Landesman Ramey, "Prevention of Intellectual Disabilities: Early Interventions to Improve Cognitive Development," Preventive Medicine 27 (1998): 224-32.
89. Haskins, p. 277.

90. "Recommendations for a Head Start Program by a Panel of Experts," February 19, 1965, U.S. Department of Health, Education, and Welfare, Office of Child Development, 1972, pp. 1-7. Now available from the Administration for Children, Youth and Families, Department of Health and Human Services.
91. Lyndon B. Johnson, Public Papers of the Presidents of the United States: Lyndon B. Johnson, Book 1, January 1 to May 31, 1965 (Washington: Government Printing Office, 1966), p. 556.
92. For a study-by-study summary of selected impact studies, see General Accounting Office, "Head Start: Research Provides Little Information on Impact of Current Program," April 1997, pp. 28-46.
93. This discussion of Head Start does not consider the child health, family, or community components of the program. The focus is on the cognitive, social, and emotional impact that Head Start may have on children as those components are directly relevant to the universal preschool debate.
94. General Accounting Office, "Head Start."
95. Selection criteria included whether Head Start participation had occurred in 1976 or later, whether studies compared outcomes for participants with those for children not attending any preschool or another preschool, whether studies compared Head Start outcomes with test norms, and whether studies used tests of statistical significance. Ibid., pp. 10, 24-26.
96. Ibid., p. 12.
97. Ibid., p. 8.
98. Ibid., p. 11.
99. Reproduced in *ibid.*, p. 48.
100. The synthesis study is McKey et al. The study was conducted under contract for the Department of Health and Human Services.
101. Ibid., Executive Summary, pp. 1-24.
102. Ibid., Executive Summary, p. 1.
103. Ibid., Executive Summary, p. 8; and p. III-11.

104. Ibid., pp. 12-13.

105. Zigler, "Formal Schooling for Four-Year-Olds?" pp. 36-37.

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33

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